



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0921; Project Identifier AD-2020-00323-R; Amendment 39-21303; AD 2020-22-07]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Inc. (Type Certificate Previously Held by Bell Helicopter Textron Inc.) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Bell Textron Inc. (Type Certificate previously held by Bell Helicopter Textron Inc.) Model 412, 412CF, and 412EP helicopters. This AD requires revising the existing Rotorcraft Flight Manual (RFM) for your helicopter. This AD was prompted by an accident and multiple reports of a cracked main gearbox (MGB) support case. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR §§ 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact Bell Textron, Inc., P.O. Box 482, Fort Worth, TX 76101; telephone 817-280-3391; fax 817-280-6466; or at <https://www.bellcustomer.com>. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110. It is also available on the internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0921.

Examining the AD Docket

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0921; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any service information that is incorporated by reference, any comments received, and other information. The street address for the Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kuethe Harmon, Safety Management Program Manager, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222- 5198; email kuethe.harmon@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The FAA is adopting a new AD for Bell Textron Inc. Model 412, 412CF, and 412EP helicopters. This AD was prompted by an accident on a Model 412EP helicopter and multiple reports of a cracked MGB support case. Initial investigations showed that excessive pylon pitch vibrations likely caused overload that resulted in these failures, and investigations are ongoing to determine the root cause of these vibrations. However, field experience and flight test data indicate that excessive degradation of the transmission mounts and friction dampers could cause the sudden increase in one-per-rev vertical vibration, and minimum collective and cyclic controls friction not meeting the maintenance manual specifications may also be a contributing factor.

This condition, if not addressed, could result in structural failure of the MGB support case and subsequent reduced control of the helicopter. To address this unsafe condition, this AD requires revising Section 2, Normal Procedures, under both “BEFORE TAKEOFF” and “IN-FLIGHT OPERATION(S)” of the existing RFM for your helicopter.

Related Service Information under 1 CFR part 51

The FAA reviewed Section 2 – Normal Procedures, of Bell 412 BHT-412-FM-1 RFM, Revision 26; Bell 412 BHT-412-FM-2 RFM, Revision 13; Bell 412 BHT-412-FM-3 RFM, Revision 20; Bell 412EP BHT-412-FM-4 RFM, Revision 37; Bell 412EPI BHT-412-FM-5 RFM, Revision 9; and Subaru Bell 412EPX BHT-412-FM-6 RFM, Revision 5, each dated August 19, 2020. These RFM revisions add a caution under “BEFORE TAKEOFF” and “IN-FLIGHT OPERATION(S)” to the existing RFM for your helicopter.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Other Related Service Information

The FAA also reviewed Bell Operation Safety Notice 412-18-43, dated December 19, 2018 (OSN), which notified Model 412 and 412EP helicopter owners and operators of reports regarding rapid buildup of one-per-rev vertical vibration associated with a large steady state forward cyclic displacement in combination with collective input while at 100/103 percent revolutions per minute (RPM) with any part of the skid gear in contact with the ground. The OSN also noted that this vibration mode can be encountered

on all Bell Model 412 helicopters equipped with any type of landing gear. Finally, the OSN reminded operators that, should this vibration mode be experienced, the amount of forward cyclic input shall immediately be reduced and, if necessary, the collective and rotor RPM shall also be reduced to exit the vibration mode described.

FAA's Determination

The FAA is issuing this AD after evaluating all of the relevant information and determining the unsafe condition described previously is likely to exist or develop in other helicopters of these same type designs.

AD Requirements

This AD requires, before further flight, revising Section 2, Normal Procedures, under both "BEFORE TAKEOFF" and "IN-FLIGHT OPERATION(S)" of the existing RFM for your helicopter to add a caution about what to do if a sudden increase in one-per-rev vertical vibrations occurs with large steady state forward cycle displacements in combination with collective input while at a certain RPM % is encountered while any part of the skids is touching the ground. The caution varies depending on your helicopter model and serial number.

Revising the existing RFM for your helicopter may be performed by the owner/operator (pilot) holding at least a private pilot certificate. This authorization is an exception to the FAA's standard maintenance regulations. The pilot must record compliance with this AD in the aircraft maintenance records in accordance with 14 CFR 43.9(a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

Interim Action

The FAA considers this AD interim action. If final action is later identified, the FAA might consider further rulemaking then.

FAA's Justification and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (5 U.S.C.) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for "good cause" finds that those procedures are "impracticable, unnecessary, or contrary to the public interest." Under this section, an agency, upon finding good cause, may issue a final rule without seeking comment prior to the rulemaking.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because the required corrective action must be completed before further flight. Therefore, notice and opportunity for prior public comment are impracticable and contrary to public interest pursuant to 5 U.S.C. 553(b)(3)(B). In addition, for the reasons stated above, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than one month.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and the FAA did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, the FAA invites you to participate in this rulemaking by submitting written comments, data, or views. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include

supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit them only one time.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will file in the docket all comments received, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. The FAA will consider all the comments received and may conduct additional rulemaking based on those comments.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this final rule contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this final rule, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this final rule. Submissions containing CBI should be sent to Kuethe Harmon, Safety Management Program Manager, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5198; email kuethe.harmon@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 96 helicopters of U.S. registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this AD.

For Model 412 and 412EP helicopters, revising the existing RFM for your helicopter takes about 0.5 work-hour for an estimated cost of \$43 per helicopter and \$4,128 for the U.S. fleet.

For Model 412CF helicopters, there are no costs of compliance associated with this AD because there are no helicopters with this type certificate on the U.S. Registry.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

- 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2020-22-07 Bell Textron Inc. (Type Certificate Previously Held by Bell Helicopter Textron Inc.): Amendment 39-21303; Docket No. FAA-2020-0921; Project Identifier AD-2020-00323-R.

(a) Effective Date

This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This airworthiness directive (AD) applies to Bell Textron Inc. (Type Certificate previously held by Bell Helicopter Textron Inc.) (Bell) Model 412, 412CF, and 412EP helicopters, certificated in any category.

Note 1 to paragraph (c): Helicopters with a 412EPI or 412EPX designation are Model 412EP helicopters.

(d) Subject

Joint Aircraft System Component (JASC): 5400, Nacelle/Pylon Structure.

(e) Unsafe Condition

This AD was prompted by an accident and multiple reports of a cracked main gearbox (MGB) support case. The FAA is issuing this AD to address excessive pylon pitch vibrations. The unsafe condition, if not addressed, could result in structural failure of the MGB support case and subsequent reduced control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Before further flight:

(1) For Bell Model 412 helicopters with serial number (S/N) 33001 through 33107 inclusive, S/N 33108 through 33213 inclusive, S/N 34001 through 34024 inclusive, or S/N 36001 through 36019 inclusive, revise Section 2, Normal Procedures, under both “BEFORE TAKEOFF” and “IN-FLIGHT OPERATION(S)” of the existing Rotorcraft Flight Manual (RFM) for your helicopter by adding the information in Figure 1 to paragraph (g)(1) of this AD or by adding this information under both “BEFORE TAKEOFF” and “IN-FLIGHT OPERATION(S)” of the following as applicable for your helicopter: Bell 412 BHT-412-FM-1 RFM, Revision 26; or Bell 412 BHT-412-FM-2 RFM, Revision 13, each dated August 19, 2020. Using a different document with information identical to this information under both “BEFORE TAKEOFF” and “IN-FLIGHT OPERATION(S)” in the RFM revision specified in this paragraph for your helicopter is acceptable for compliance with the requirements of this paragraph.

CAUTION: LARGE STEADY STATE FORWARD CYCLIC DISPLACEMENTS IN COMBINATION WITH COLLECTIVE INPUT WHILE AT 100% RPM WITH ANY PART OF THE SKIDS TOUCHING THE GROUND MAY RESULT IN A SUDDEN INCREASE IN ONE PER REV VERTICAL VIBRATIONS. IF THIS OCCURS IMMEDIATELY REDUCE FORWARD CYCLIC INPUT AND IF NECESSARY REDUCE COLLECTIVE AND ROTOR RPM TO STOP THE VIBRATIONS.

Figure 1 to Paragraph (g)(1)

(2) For Bell Model 412 helicopters with S/N 36020 through 36086 inclusive, and for Bell Model 412EP helicopters with S/N 36087 through 36999 inclusive, S/N 37002 through 37999 inclusive, S/N 38001 through 38999 inclusive, or S/N 39101 through 39999, revise Section 2, Normal Procedures, under both “BEFORE TAKEOFF” and “IN-FLIGHT OPERATIONS” of the existing RFM for your helicopter by adding the information in Figure 2 to paragraph (g)(2) of this AD or by adding this information under both “BEFORE TAKEOFF” and “IN-FLIGHT OPERATIONS” of the following as applicable for your helicopter: Bell 412 BHT-412-FM-3 RFM, Revision 20; Bell 412EP BHT-412-FM-4 RFM, Revision 37; Bell 412EPI BHT-412-FM-5 RFM, Revision 9; or Subaru Bell 412EPX BHT-412-FM-6 RFM, Revision 5, each dated August 19, 2020. Using a different document with information identical to this information under both “BEFORE TAKEOFF” and “IN-FLIGHT OPERATIONS” in the RFM revision specified in this paragraph for your helicopter is acceptable for compliance with the requirements of this paragraph.

CAUTION: LARGE STEADY STATE FORWARD CYCLIC DISPLACEMENTS IN COMBINATION WITH COLLECTIVE INPUT WHILE AT 100/103% RPM WITH ANY PART OF THE SKIDS TOUCHING THE GROUND MAY RESULT IN A SUDDEN INCREASE IN ONE PER REV VERTICAL VIBRATIONS. IF THIS OCCURS IMMEDIATELY REDUCE FORWARD CYCLIC INPUT AND IF NECESSARY REDUCE COLLECTIVE AND ROTOR RPM TO STOP THE VIBRATIONS.

Figure 2 to Paragraph (g)(2)

(3) For Bell Model 412CF helicopters, revise Section 2, Normal Procedures, under both “BEFORE TAKEOFF” and “IN-FLIGHT OPERATIONS” of the existing RFM for your helicopter by adding the information in Figure 1 to paragraph (g)(1) of this AD. Using a different document with information identical to that contained in Figure 1 to paragraph (g)(1) of this AD is acceptable for compliance with the requirements of this paragraph.

(4) The actions required by paragraphs (g)(1) through (3) of this AD may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9(a)(1) through (4) and 14 CFR 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, DSCO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i) of this AD. Information may be emailed to: 9-ASW-190-COS@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

For more information about this AD, contact Kuethe Harmon, Safety Management Program Manager, DSCO Branch, Compliance & Airworthiness Division, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222- 5198; email kuethe.harmon@faa.gov.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Section 2, Normal Procedures, of Bell 412 BHT-412-FM-1 Rotorcraft Flight Manual (RFM), Revision 26, dated August 19, 2020.

(ii) Section 2, Normal Procedures, of Bell 412 BHT-412-FM-2 RFM, Revision 13, dated August 19, 2020.

(iii) Section 2, Normal Procedures, of Bell 412 BHT-412-FM-3 RFM, Revision 20, dated August 19, 2020.

(iv) Section 2, Normal Procedures, of Bell 412EP BHT-412-FM-4 RFM, Revision 37, dated August 19, 2020.

(v) Section 2, Normal Procedures, of Bell 412EPI BHT-412-FM-5 RFM, Revision 9, dated August 19, 2020.

(vi) Section 2, Normal Procedures, of Subaru Bell 412EPX BHT-412-FM-6 RFM, Revision 5, dated August 19, 2020.

(3) For service information identified in this AD, contact Bell Textron, Inc., P.O. Box 482, Fort Worth, TX 76101; telephone 817-280-3391; fax 817-280-6466; or at <https://www.bellcustomer.com>.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on October 15, 2020.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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